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| 09/757,721      | 01/10/2001  | Ursula Murschall     | 00/001 MFE          | 8369             |

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ProPat, L.L.C.

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EXAMINER

UHLIR, NIKOLAS J

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/757,721

Applicant(s)

MURSCHALL ET AL

Examiner

Nikolas J. Uhler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to a polyester film, classified in class 428, subclass 480.
  - II. Claim 18, drawn to a method for producing a polyester film, classified in class 523, subclass 351.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case preformed polyethylene films could be laminated together with heat and/or pressure and then biaxially oriented and heat set.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Klaus Schweitzer on 12/05/01 a provisional election was made with traverse to prosecute the invention of the product, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claim 18 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 6, 8-11 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakos et al. (US6251505) in view of Oishi (US5936048) et al.

The limitations “fed directly by masterbatch technology during film production, where the masterbatch was obtained by gradual heating at sub-atmospheric pressure, with stirring in” in claim 1 is a product-by-process limitation and appears not to be further limiting in so far as the structure of the product is concerned. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even

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though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113. This is also true for the limitations present in the entirety of claims 3 and 13.

Rakos et al. teaches a composite multilayer film comprising a primary unfilled polyester film layer and a secondary polyester layer containing 1-8% by weight of finely divided silica particles. These particles have a diameter of 2.3 to 6.2 microns (abstract). This film is preferably made from polyethylene terephthalate (column 4 lines 33-35). This film may be uniaxially/biaxially oriented or unoriented (column 4 lines 40-41). Secondary layers of polyester can be layered on one or both sides of the primary layer. The total thickness of the film is between 50-250 microns (column 5 lines 16-22). The silica particles used as the filler material should not have a diameter greater than 13 microns. The film should not contain greater than 8% by weight of silica particles, as an excessive amount of small particles can result in the film having unacceptable haze and light transmission (column 5 lines 38-55). Additionally, Rakos et al. teaches that the layers of the film may contain any of the additives conventionally employed in the manufacture of polyester films. Examples are pigments, dyes, lubricants, anti-oxidants, antiblocking agents, gloss improvers, optical brighteners, and ultraviolet light stabilizers (column 6 lines 42-55). It is preferred that the primary layer of polyester contains little or no filler so as to maintain optimum optical properties (column 5 lines 53-56). Additionally, the composite film may be coated on one or both sides with one or more adhesion promoting coatings (Column 6, lines 61-62). In the examples, Rakos et al. discloses a number of formulations for films comprising 2 layers of polyethylene

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terephthalate. In example 1, the primary film is unfilled, and the secondary layer contains 5% by weight of silica particles. The composite film was 175 microns thick. This example had a luminescent transmittance of 50% (Column 7 example 1). In example 3, the primary layer was unfilled, and the secondary layer contained 7.5% by weight of silica particles. The composite film was 100 microns thick and had a luminescent transmission was 50% (Column 9, example 3). In example 2, the primary layer was unfilled, and the secondary layer contained 4% by weight of silica particles. The composite film was 178 microns thick and had a luminescent transmission of 70% (Column 8-9 example 2). Although Rakos et al. does not teach a film with a luminescent transmittance of 80% or higher, it is logical to believe that the transmittance is a function of film thickness and silica particle loading as demonstrated above. Rakos et al. allows for the silica particle loading to be as low as 1% by weight (described above). Therefore, one with skill in the art could formulate a composition with the required transmittance. Further, because the transmittance can be controlled, the haze of the film can also be controlled. If the film were made with of a composition resulting in a transmission of 80% or greater, the haze would necessarily be below 20%. This is because the sum total of transmission, absorption, and reflection must equal 100%. If the transmission is 80% the haze is inherently below 20%. Additionally, although Rakos et al. does not specifically teach a level gloss for this film, it does teach the use of gloss enhancing agents (as described above). Therefore, the film could be made to have the gloss required with the addition of these additives. Finally, Rakos et al. teaches that the film could incorporate optical brighteners (described above), the use of which would allow

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the desired yellowness index to be achieved, particularly if the film was modified with an ultraviolet stabilizer. Although Rakos et. al doesn't teach the use of specific amounts of these additives, it is logical to believe that the addition of larger quantities of these additives would result in a film having the desired gloss, yellowness and transparency.

Rakos et al. does not explicitly teach the incorporation of a soluble flame retardent in the interior or exterior layer of a multilayer film.

Oishi et al. teaches a method for preparing a modified polymer resin (title). These polymer resins include polyester such as polyethylene terephthalate (Column 17, lines 43-45). Oishi also teaches that in addition to a modified resin additive, an additive such as dimethyl methylphosphonate may be added to a resin to provide that resin with flame retardent properties (column 21 lines 4-11). Typically this flame retardent is added in an amount of 5-40% by weight (Column 23 lines 47-48).

Therefore it would have been obvious to one with skill in the art at the time the invention was made to incorporate 5-40% by weight dimethyl methylphosphonate as described by Oishi et al. in the multilayer film (preferably the secondary layer) described by Rakos et al.

One would have been motivated to make this modification due to the increase in flame resistance of the film one would expect to see as a result.

5. Claims 2, 5, 7, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakos et al. in view of Oishi et al. as applied to claims 1 and 8 above, and further in view of Peiffer et al. (US6280833)

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Rakos et al. as modified by Oishi et al. stated above meets all of the limitations for claims 2, 5, 7, 11, and 12 except for those listed below.

Rakos et al. does not teach the incorporation of phenolic stabilizers, metal stearates, or metal/alkaline earth metal stearates/carbonates as a hydrolysis stabilizer in a multilayer film. More specifically Rakos et al. does not teach adding .1-1% by weight of a hydrolysis stabilizer to a multilayer film.

Peiffer et al. teaches common additives which can be used as stabilizers in many polymers. These include phenolic stabilizers and metal/alkaline earth-metal stearates or carbonates (column 8 line 36-48). These materials are typically used in an amount between .05 and 2% by weight.

Therefore it would have been obvious to one with skill in the art at the time the invention was made to incorporate .05-2% by weight of a phenolic stabilizer or metal/alkaline earth-metal stearates or carbonate as described by Peiffer et al. to the multilayer film described by Rakos et al. and modified by Oishi et al. The metal/alkaline earth-metal stearates are known to improve processability by acting as a lubricant during extrusion processes, and phenolic stabilizers are well know additives to prevent discoloration.

One would have been motivated to make this modification due to the increased processability of the film and the increase in discoloration resistance one would expect to see.

### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhler whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0389.

  
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December 14, 2001